

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte JAMES P. MITCHELL

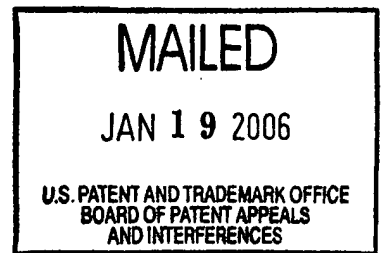
---

Appeal No. 2005-1821  
Application No. 09/494,198

---

ON BRIEF

---



Before RUGGIERO, GROSS, and LEVY, Administrative Patent Judges.  
LEVY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-17.

We REVERSE, and enter a new ground of rejection under 37 CFR § 41.50(b).

BACKGROUND

The appellant's invention relates to a system and method for internet access on a mobile platform (specification, page 1).

**Best Available Copy**

Claim 1 is representative of the invention, and is reproduced as follows:

1. A communication system for a mobile platform, comprising:
  - a direct broadcast very low range receiver located on the mobile platform; and
  - a computer network including at least one terminal on the mobile platform, the terminal providing Internet access through the direct broadcast receiver.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

LaRocca et al. (LaRocca)	6,314,572	Nov. 6, 2001 (filed May 28, 1999)
Hiett	6,477,152	Nov. 5, 2002 (filed Dec. 30, 1998)

Claims 1, 2, 4-9, 11-14, 16 and 17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Hiatt.

Claims 3, 10 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hiatt in view of LaRocca.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the answer (mailed November 3, 2004) for the examiner's complete reasoning in support of the rejections, and to the brief (filed September 8, 2004) for the appellant's arguments thereagainst.

Only those arguments actually made by appellant have been considered in this decision. Arguments which appellant could have made but chose not to make in the brief have not been considered. See 37 CFR § 41.37(c)(1)(vii)(eff. Sept. 13, 2004).

#### OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, appellant's arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

Upon consideration of the record before us, we make the determinations which follow. We observe at the outset that appellant (brief, page 4) has included all of the claims rejected under 35 U.S.C. § 102(e) as a single group, with claim 1 indicated as representative of the group. In addition, appellant has indicated that all of the claims rejected under 35 U.S.C.

§ 103(a) as a single group, with claim 3 indicated as representative of the group. Notwithstanding the groupings provided, appellant refers to both independent claims 1 and 8 in the arguments regarding the claims rejected under 35 U.S.C. § 102(e). Accordingly, we will separately address claim 8 to the extent that arguments presented apply to this claim. In addition, we observe that the claims of group 2 have been argued as a group. Accordingly, we will consider claim 3 as representative of this group. We begin with the rejection of claim 1. It is well settled that if a prior art device inherently possesses the capability of functioning in the manner claimed, anticipation exists whether there was a recognition that it could be used to perform the claimed function. See, e.g., In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997).

The examiner's position (answer, pages 4 and 5) is ,inter alia, that Hiett discloses a very low range infrared signal broadcast receiver located on the mobile platform. Appellant asserts (brief, page 8) that "Hiett does not recite a very low range direct broadcast receiver or providing Internet data to the

computer network via the direct broadcast receiver from a distance of less than a few meters." It is asserted (brief, pages 8 and 9) that:

Applicant defines short or low range in the application, stating: "Direct transmitter 66 and transmitter 70 are preferably short range communication units. System 30 can be designed so that transmitters 66 and 70 only require a range of several feet or a few meters". . . . Further, the application states "Wireless gatelink 130 can be a very short-range (several feet to a few meters) high-speed radio data link or high-speed optical data link" . . . . The present application also states "In this way, several mobile platforms 35 can communicate to several docking areas 37 without interference and without utilizing different frequency ranges. In addition, utilizing short-range devices for receivers 60 and 72 and transmitter 70 allows smaller antennas."

It is argued (brief, page 9) that receiver 106 in Hiett is not disclosed as being a very short range receiver, and that the only range discussed is a 1000 foot range. It is further argued (id.) that infrared signals may potentially be received from a significant distance, in particular, more than a few meters. Appellant additionally asserts (id.) that:

Further, a wireless LAN that is configured to broadcast within a 1,000 foot range cannot provide the advantages described in the present application. For example, where multiple transmitters, as described in the present application, are used in the system of Hiett the 1,000 foot range would cause interference and require the use of different frequency

ranges. Similarly, the 1,000 foot range would require larger antennas to receive the signal."

We begin with claim construction. It is an essential prerequisite that the claimed subject matter be fully understood. Analysis of whether a claim is patentable over the prior art begins with a determination of the scope of the claim. The properly interpreted claim must then be compared with the prior art. Claim interpretation must begin with the language of the claim itself. See Smithkline Diagnostics, Inc. v. Helena Laboratories Corp., 859 F.2d 878, 882, 8 USPQ2d 1468, 1472 (Fed. Cir. 1988). Accordingly, we will initially direct our attention to appellant's claim 1 to derive an understanding of the scope and content thereof. The general claim construction principle that limitations found only in the specification of a patent or patent application should not be imported or read into a claim must be followed. See In re Priest, 582 F.2d 33, 37, 199 USPQ 11, 15 (CCPA 1978). One must be careful not to confuse impermissible imputing of limitations from the specification into a claim with the proper reference to the specification to determine the meaning of a particular word or phrase recited in a claim. See E.I. Du Pont de Nemours & Co. v. Phillips Petroleum

Co., 849 F.2d 1430, 1433, 7 USPQ2d 1129, 1131 (Fed. Cir.), cert. denied, 488 U.S. 986 (1988).

What we are dealing with in this case is the construction of the limitations recited in the appealed claims. As stated by the court in In re Hiniker Co., 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998) "[t]he name of the game is the claim." Claims will be given their broadest reasonable interpretation consistent with the specification, and limitations appearing in the specification are not to be read into the claims. In re Etter, 756 F.2d 852, 858, 225 USPQ 1, 5 (Fed. Cir. 1985).

We find that the language "from a distance of less than a few meters" does not appear in claim 1. However, claim 1, does recite that the direct broadcast receiver is a very low range receiver. From the definitions found in the specification, as noted by appellant (brief, page 8), of "short or low range" we note that the term low does not appear in the definitions provided, or from our review of the specification. However, the specification does refer to short range (page 16) and very short range (page 22). In these descriptions found in the specification, we note that the direct transmitter 66 and transmitter 70 are "preferably" short range communications units, and that the system "can" be designed so that the transmitters

only require a range of several feet or a few meters. From these disclosures we find that the direct transmitter 66 and transmitter 70, while preferably short range communication units, are not limited to short range units. In addition, from the language that the transmitters "can" be designed to only require a range of several feet to a few meters, we find that it is not a requirement that the transmitters 66 and 70 are limited to transmitting over a few meters. However, we find from the language on page 22 of the specification that wireless gatelink 130 "can be a very short range (several feet to a few meters . . . ..)." We find from this language that wireless gatelink 130 can be a very short range of several feet to a few meters. We further find that although the gatelink is not limited to a very short range, if it is a very short range, the transmission is for a very short distance of several feet to a few meters. From the language of claim 1 of "a direct broadcast very low range receiver" we find that the language, by virtue of the express definition in the specification, is limited to several feet to a few meters. In addition, we note that we consider "low" to mean the same, in this instance, as "short."



Thus, the issue becomes whether Hiett teaches the very low range (several feet to a few meters) direct broadcast receiver recited in claim 1.

Turning to Hiett, the language in question (col. 9, lines 18-31) recites:

Further, referring to FIG. 5, first communication medium 104 may also include a ground-based LAN 512 and network system 314. In accordance with this embodiment, ground-based LAN station 512 preferably includes a transmission and receiving unit capable of communicating with the LAN interface 506. In accordance with one embodiment, ground-based LAN 512 is an airport LAN configured to communicate with aircraft operating in the airport area, for example within 1000 feet for a wireless LAN 512. The LAN interface 506 may communicate with the LAN 512 in any appropriate manner, including direct electrical or optical connection, acoustic signals, optical signals, infrared signals, microwave signals, cellular communications, or any other suitable communication technique.

From this disclosure, we find that the ground-based local area network (LAN) is an airport LAN that communicates with aircraft operating in the airport area, for example within 1000 feet for a wireless LAN. Thus, LAN interface 506 on the mobile platform (airplane) communicates with airport LAN 512 in any appropriate manner, including direct electrical or optical connection, infrared signals, cellular communications, etc. From the disclosure of Hiett, we find that airport LAN 512 is for short

range communications, and that compared to communications between the airplane and DBS satellite 210, the range between the airplane and the airport ground-based LAN is a short (or low) range. However, claim 1 recites "a very low range." In Hiett, the range of within 1000 feet does not specify a lower limit to the range. Even with a direct electrical connection between the terminal LAN 512 and the aircraft receiver 106, via aircraft interface 506, there is no disclosure in Hiett that a cable providing a direct connection between the aircraft with the terminal LAN would only be several feet to a few meters. As there is no lower range of the "within 1000 feet" specifically disclosed by Hiett, we do not find that Hiett anticipates claim 1. Similarly, we cannot sustain the rejection of independent claim 8 as the claim recites transmission from less than a few meters. The rejection of claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 102(e) is therefore reversed.

#### New Ground of Rejection

New Ground of Rejection of claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Hiett.

At the outset, we make reference to the our findings, supra, with respect to Hiett. Although we reversed the rejection of

claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 102(e) because they were not anticipated by Hiett, we find, for the reasons which follow, that the teachings of Hiett would have suggested to an artisan that the in-airport ground-based transmitter, transmits, inter alia, over a very low range (of less than a few meters). Since the ground-based system is intended for use with aircraft operating within the airport area, we find that an artisan would have considered it obvious to operate the ground-based airport LAN with aircraft near or at a gate of the airport, communicating, using cellular or infrared communications, etc., with the aircraft receiver 106, via interface 506, over distances as short as less than a few meters. That is, from the disclosure of a ground-based system operating within 1000 feet of the airport, it would flow from the disclosure that it would have been obvious to operate the system of Hiett from 1000 feet down to zero feet or within a few meters. As the disclosure of Hiett would have suggested to an artisan a range that overlaps the range of the claim, according to In re Malagari, 499 F.2d 1297, 1302, 182 USPQ 549, 553 (CCPA 1974), an overlapping range is at least prima facie obvious.

We do agree with appellant (brief, page 5) that infrared signals can be communicated over distances significantly greater

than a few meters. As disclosed in Newton's Telecom Dictionary<sup>1</sup>, infrared signals, even though they are generally used for distances less than 20 feet, can transmit as much as 6.312 Mbps over distances of several miles. Thus, we do not agree with the examiner (answer, page 5) that infrared signals are only used for short range communications.

We are not persuaded by appellant's assertion (brief, page 9) that a 1000 foot range would require a larger antenna to receive the signal. Firstly, applicant's specification makes clear that the invention is not limited to receiving signals transmitted a few meters, but can be larger distances. Secondly, no antenna or antenna size is recited in any of appellant's claims. In addition, as noted by the examiner (answer, page 9), the example in Hiett of within 1000 feet lists 1000 feet as an upper limit and suggests that the signals will be received that are transmitted over distances less than 1000 feet. As we stated, supra, from the disclosure that the in-airport system is for use by aircraft operating within the airport, we find a suggestion of aircraft using the system at any distance within the airport, such as at a gate, e.g., a very low range or within

---

<sup>1</sup> © 1999. A copy of the pertinent page is attached to the Decision.

a few meters. As to independent claim 8, we reject the claim for the same reasons as we reject claim 1. As to the other claims in the group, we reject these claims for the reasons provided by the examiner (answer, page 5), as the examiner has shown these features to be disclosed by Hiett.

We turn next to claims 3, 10 and 15 as being unpatentable over Hiett in view of LaRocca. At the outset, we make reference to our findings, supra, with respect to the teachings of Hiett, in our rejection of claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 103(a). The examiner turns to LaRocca for a teaching of using a back channel transmitter. Appellant's arguments (brief, pages 10 and 11) are based upon LaRocca not making up for the deficiencies of Hiett. We are not persuaded by appellant's arguments because of our finding that Hiett suggests, under 35 U.S.C. § 103(a) the invention of the claims from which claim 3 depends. From our review of LaRocca, we will sustain the rejection of claims 3, 10 and 15 for the reasons set forth in the examiner's answer. Accordingly, the rejection of claims 3, 10 and 15 under 35 U.S.C. § 103(a) is affirmed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 102(e) is reversed. The decision of the examiner to reject claims 3, 10 and 15 under 35 U.S.C. § 103(a) is affirmed. This decision contains a new ground of rejection pursuant to 37 CFR § 41.50(b) (effective September 13, 2004).

37 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 CFR § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

AFFIRMED-IN-PART  
37 CFR § 41.50(b)

BOARD OF PATENT  
APPEALS  
AND  
INTERFERENCES

Appeal No. 2005-1821  
Application No. 09/494,198

Page 16

Kyle Eppele  
Rockwell Collins Inc.  
400 Collins Rd NE  
Cedar Rapids, IA 52498

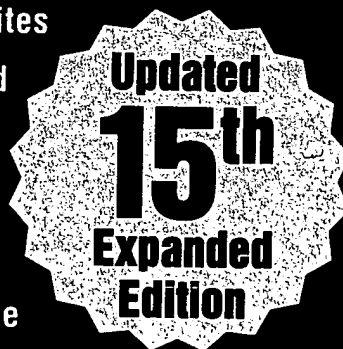




# NEWTON'S TELECOM DICTIONARY

**The Official Dictionary of  
Telecommunications & the Internet**

- IP Telephony • LANs & Intranets • Call Centers & Computer Telephony
- Fiber Optics, SONET and DWDM • Satellites
- Voice, Data, Image & Video Networking • Wired and Wireless Telecom • VoIP • T-1, T-3, T-4, E-1, E-3 • ISDN & ADSL • Cable Modems • Cellular, PCS & GSM • Windows 95, 98, NT, NetWare, Apple, Sun & Unix Networking • Ecommerce



**by Harry Newton**

## **NEWTON'S TELECOM DICTIONARY**

Copyright © 1999 Harry Newton  
email: [Harry@HarryNewton.com](mailto:Harry@HarryNewton.com)  
personal web site: [www.HarryNewton.com](http://www.HarryNewton.com)

All rights reserved under International and Pan-American Copyright conventions, including the right to reproduce this book or portions thereof in any form whatsoever.

Published in the United States by  
Miller Freeman, Inc.  
Tenth floor  
12 West 21 Street  
New York, NY 10010  
212-691-8215 Fax 212-691-1191  
1-800-999-0345 and 1-800-LIBRARY

ISBN Number 1-57820-031-8

August, 1999

For individual orders, and for information on special discounts for quantity orders, please contact:  
Telecom Books  
6600 Silacci Way  
Gilroy, CA 95020  
Tel: 800-LIBRARY or 408-848-3854  
Fax: 408-848-5784  
Email: [telecom@rushorder.com](mailto:telecom@rushorder.com)

Distributed to the book trade in the U.S. and Canada by  
Publishers Group West  
1700 Fourth St., Berkeley, CA 94710

Fifteenth Edition, Expanded and Updated  
Matt Kelsey, Publisher  
Christine Kern, Manager

Manufactured in the United States of America

irman, suggested the tips, he said, use an "omation" anywhere a graphical user interface applications that used Dynamic Data Exchange cellular communications and

**anel 1.** A channel provided with transmission capability, including user control signals, etc. It may have a higher rate than that required

rel made available by the channel or value-added services with transmission capability.

**boxes** An Octel term for a e-mail system. Here's their access, directly or indirectly, containing information that

live by employees. Callers the system. One type of is the messages to the callers

own as audiotex, makes it a base so callers can select to hear. Another type of prompts callers to reply to

for further information can be their names and phone number description. They can also be

employee who can immediately word can be required before information can be heard.

all type options. Two digit 10 digit destination number

d IECs about the type of the special characteristics of the e classes. These codes plus

of the signalling protocol of les are defined by Bellcore.

iparty, 02 - ANI Failure, 06 - or Handling, 20 - AIOD, 24 -

1 DN, 31 - Trouble/Busy, 32 - 34 - Telco Operator, 52 -

2 - Cellular 2, 63 - Roaming, rate virtual Network.

ame for the data fields with-

**Information Highway** A term coined by Al Gore. This was defined by Dan Lynch, the man who started the trade group InterOp and who was very heavily involved with Internet in the very beginning. As the term got developed and popularized, it became known as The Information Superhighway. See also Information Superhighway.

**Information Outlet** IO. Sort of like an AC power outlet, a little more cerebral. A connecting device designed for a location (usually a wall in the office) on which horizontal wiring subsystem cable pairs terminate and which receives an inserted plug; it is an administration point located between the horizontal wiring subsystem and work location wiring system. Although such devices are also referred to as outlets, the term information outlets encompasses the integration of voice, data, and other communication services that can be supported via a premises distribution system.

**Information Packet** A bundle of data sent over a network. The protocol used determines the size and makeup of the packet.

**Information Page Mapping** See ADSI.

**Information Payload** 50.112 Mb/s of bandwidth allocated within each SONET STS-1 channel to carry information end-to-end. Also known as STS-1 envelope capacity.

**Information Processing** Data to achieve a desired objective. Also called data processing.

**Information Provider** A business or person providing information to the public for money. The information is typically selected by the caller through touchtones, delivered using voice processing equipment and transmitted over telephone lines, e.g., 900, 976, 970. Typically, billing for information providers' services is done by a local or long distance phone company. Sometimes the revenues for the service are split by the information provider and the phone company. Sometimes the phone company simply bills a per minute or flat charge. A typical "information provider" is American Express, which provides a service — 1-900-WEATHER. By dialing that number you can touchtone in city names and find out temperatures, weather forecasts, etc. Calling 1-900-WEATHER costs several dollars a minute.

**Information Service** The Telecommunications Act of 1993 defined Information Service as: The term "information service" means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.

**Information Signals** A Bellcore definition. Information signals inform the customer or operator about the progress of the call. They are generally in the form of universally understood audible tone (for example, dial tone, busy, ringing) or recorded announcements (for example, intercept, all circuits busy).

**Information Superhighway** A very vague concept which Senator Al Gore created in the early 1990s and which gained great popularity when he became vice president and the Clinton/Gore administration started pushing the concept. The Information Superhighway is a term sufficiently vague that it can mean anything to anyone. It can mean a gigantic Internet reaching everybody in North America, or the planet (if you're that expansive). It could just as easily mean a combination 500-channel interactive cable TV system with full video on demand to every household in North America.

Somewhere in all this is the idea that easy access to large amounts of information will enrich our lives immeasurably. Who's going to get first access to it all, what the precise technical details will be, and who's going to pay for it are, naturally, minor details to be worked out. We can be assured that the details will be worked out, since the idea originated in Washington, DC., home of so many practical ideas.

**Information Technology** IT. A fancy name for data processing, which became management information systems (MIS), which became information technology. All the same thing, essentially. See also IT.

**Information Technology District** The Information Technology District (ITD) is New York City's fastest growing totally-wired community. Anchored by the New York Information Technology Center @ 55 Broad Street and sharing the Downtown Business Improvement District's boundaries of City Hall to the southern tip of Manhattan, the ITD serves as the headquarters for Silicon Alley. The ITD is home to more than 250 IT companies, from web page developers to financial modeling firms. According to promotion from ITD, these companies are quickly emerging as the City's prime economic generators, creating jobs and innovative products, and serving as pioneers in the ongoing revitalization of Downtown into a 24-hour, 21st Century global community.

**Information Technology Services** I got this email from Ferrell Mallory, Managing Director, IT Operations Brigham Young University, Salt Lake City. "Remember all that preaching you did years back about telecom operations getting swallowed up by MIS types? Well, I'm there again. I was in and out of our campus MIS operation 14 years ago when they decided my telecom operation was a "major misfit" until the campus became so dependent upon the data network we installed - mostly from telecom revenues - AND everyone blamed the network if anything vaguely related to the network was inoperative, e.g., network infrastructure, servers, clients, keyboards, electrical power, air conditioning, etc., etc. So, we reorganized again, this time along functional lines instead of technology and I'm back in what we call "Information Technology Services". I still have the telephone system and data communication system but have added servers, and all campus instructional media systems and services.

**Information To Go** A term coined by Digital Equipment Corporation to refer to the transmission of data over airwaves instead of fixed wires.

**INFOSEC** A military term for information systems security. See NSA.

**InfoSpace** A service that helps surfers locate listings of people, businesses, government offices, toll-free numbers, fax numbers, e-mail addresses, maps and URLs, all on one Web site. InfoSpace has developed a patent pending technology that integrates all of these services. [www.infospace.com](http://www.infospace.com)

**Infostrada SpA** A new phone company which started service in July 1998, competing against Italy's erstwhile monopoly, Telecom Italia. Infostrada is controlled by Olivetti SpA and the German company, Mannesmann AG.

**Infrared** The band of electromagnetic wavelengths between the extreme of the visible part of the spectrum (about 0.75 um) and the shortest microwaves (about 100 um). This portion of the electromagnetic spectrum is used in some fiber-optic transmission systems, but more commonly for airwave communications. In such application, the system typically consists of a two transmitter/receivers. The infrared light signal is transmitted through a focused lens to a collecting lens in the receiving device. Transmission rates of as much as

6.312 Mbps can be achieved over distances of as much as several miles. Typically deployed in campus environments or other very short-haul applications where cabled systems are not possible or practical, infrared offers the advantage of no FCC licensing requirements, thereby sometimes making it preferable to microwave.

Infrared also is commonly used for short haul (up to 20 feet) through-the-air data transmission. With the adoption of new infrared standards at a meeting of over 50 manufacturers in June 1994, many PC devices will begin sporting something called the "Infrared Serial Data Link" (IrDA) with speeds up to 1.5 Mbps. This standard is designed to ensure that products sporting this link will work together and interchangeably.

**Infrared Data Association** See IrDA.

**Infrared Fiber** Optical fibers with best transmission at wavelengths of 2 um or longer, made of materials other than silica glass.

**Infrared Serial Data Link** As a result of a meeting at Microsoft of over 50 manufacturers in June 1994, many PC devices will begin sporting something called the "Infrared Serial Data Link," an infrared through-the-air (up to 20 feet) link with speeds up to 1.5 million bytes per second. This standard is designed to insure that products sporting this link will work together and interchangeably. There is now an organization called I.R.D.A., the Infrared Data Association, representing over 80 manufacturers.

**Infrastructure/Telecommunications** A collection of those telecommunications components, excluding equipment, that together provide the basic support for the distribution of all information within a building or campus.

**ING** Calling party. The ING calls the ED, or called party, to set up a data transfer. ING and ED apply to any type of data transfer, including both voice and data.

**Ingredient Technology** See Indeo Video.

**Ingress** Ingress is a cable TV term. Ingress occurs when strong outside signals leak into a CATV coaxial cable and interfere with the signal quality inside the home and nearby homes. Picture a car driving along outside a house. The car has a strong CB radio. It sends the signal out. It is picked up by the coaxial CATV cable in the house, which then sends it to nearby houses. The primary cause of ingress is cheap wiring and/or loose connectors. But the interfering signal is caused by radio transmitters of all types (including short wave transmitters), electrical appliances, motors with brushes, light dimmers or speed controls on toys. Leakage is really a shielding problem. The number of houses that can be affected by ingress depends on the strength of the signal and the number of service areas around a CATV node, which could be as many as 1,000. Companies like Trilithic in Indianapolis are expert in measuring ingress. See also Leakage.

**Inheritance** A term from object oriented programming. Data abstraction can be carried up several levels. Classes can have super-classes and subclasses. In moving to a level of greater specificity, the application developer has the option to retain some attributes and methods of the super-class, while dropping or adding new attributes or methods. This allows greater flexibility in class definition. It is even possible in some languages to inherit from more than one parent. This is referred to as multiple inheritance. See Object Oriented Programming.

**INIC** ISDN Network Identification Code.

**INIM** ISDN Network Interface Module (INIM) is both hardware and software. It does the job of an NT-1, so the physical network interface is ISDN-U. When calls arrive, the INIM col-

lects the number dialed and Caller ID. This data is passed on to the Call Processing Module, which does the actual call handling. When you go off hook to place an outbound call, the INIM assigns an available ISDN B-channel to the call. For 'Find Me' scenarios, the INIM lets Front Desk place multiple, simultaneous out-bound calls. During data calls, the INIM constantly monitors the data transmission rate on the ISDN line. The INIM will automatically build up or tear down the second ISDN B channel from a data call to match bandwidth requirements. Because telcos charge for usage per B-channel, the INIM uses both B channels only when necessary. If both B channels are doing data when a new voice or fax call arrives, the INIM instantly tears down one of the B channels to let the new call through. Ditto for when you make an out-bound voice or fax call.

**INIT** An INIT is the Macintosh System 7 equivalent of a terminate and stay resident (TSR) program. An init might load to initialize a fax modem, screen saver, etc. Similar to the DOS environment, some inits conflict. When troubleshooting operating system problems, remove inits first.

**Initial Address Message.** IAM. A SS7 signaling message that contains the address and routing information required to establish a point-to-point telephone connection.

**Initial Answer** Initial answer refers to the point in time at which a computer telephony system answers an incoming call. Many computer telephony systems require significant processing to set up to answer incoming calls. For example, the system may examine the incoming ANI, DNIS, or PBX integration data to determine how to answer (which prompt to use), or where to switch the call. This can involve significant database access and processing time. Therefore, the ability to handle large number of incoming calls (especially in burst mode) may delay the initial answer. The delay from when a call reaches a computer telephony system until the computer telephony system answers the call (the initial answer) is usually a key response time to understand when testing a computer telephony system.

**Initial MAC Protocol Data Unit** IMPDU. A Connectionless Broadband Data Service (CBDS) term that corresponds to the L3 PDU in Switched Multimegabit Data Service (SMDS). CBDS is the European equivalent of SMDS.

**Initial Period** The minimum billing period on a call. For interstate or inter-LATA AT&T calls, the initial period is one-minute. Some non-AT&T long distance companies have initial periods under one-minute. This also applies to local calls in Measured areas.

**Initial Program Load** The initial loading of generic and/or configuration software into a PBX or other phone system. The Initial Program Load is a pain in the rear end. But an even bigger pain is what happens when you lose your programming and you've forgotten to back it all up.

**Initial Sequence Number** ISN. Generated at each end of TCP connection to help to uniquely identify that connection.

**Initialization String** A group of commands sent to the modem by a communications program at start-up -- before the number has been dialed. Such a string tells the modem to set itself up in a way that will make it easy to correctly communicate with a distant modem.

**Initialize** Setting all counters, switches, addresses or contents of storage to zero at the beginning of, or at prescribed points in the operation of a computer routine or a communications transfer; a major function of "rebooting" a computer giving everything a "reset".

**Initializing Terminals** An ISDN term. These devices

sometimes  
ISDN term  
cation num  
terminal to  
Initiation  
Switch Cap  
for a certai  
Logic Exec  
the combir  
ment ID.  
Initiator  
requests a  
device.  
Injection  
diode laser  
Injection  
works on tl  
cal fiber.  
INI See Ir  
Inline In  
browser as  
with it.  
Inline Pl  
browser th  
allows gree  
multimedia  
INMAC Ir  
INMARS/ir  
that has s  
ships at s  
small stati  
them. Inm  
tronic mail  
agement. T  
Inmarsat's  
itself as th  
based in  
www.inma  
Inmate  
agement ap  
of correcti  
tion Numb  
only, colle  
packages  
allowing ir  
They may  
billed nu  
blocking  
minimizing  
Identify  
time-of  
tempora  
restrict  
system-  
Inmate  
Prison in  
time on th  
phone call  
vice called  
tion Code,  
to authori  
bondsmen  
INMAC Int  
INMAC li

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☒ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**